

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
COLORADO RIVER BASIN REGION**

ORDER NO. 00-004

WASTE DISCHARGE REQUIREMENTS  
FOR  
HARDY & HARDY INVESTMENTS, LAND OWNER  
CALIFORNIA BIO-MASS INC., OPERATOR  
COMPOSTING MANAGEMENT FACILITY  
Southeast of Thermal - Riverside County

The California Regional Water Quality Control Board, Colorado River Basin Region, finds that:

1. California Bio-Mass Inc., Operator, 83-109 Avenue 62, Thermal, California 92274 and Hardy & Hardy Investments, Land Owner, 10397 Alder Avenue, Bloomington CA 92316 (hereinafter collectively referred to as the discharger), submitted a Report of Waste Discharge (ROWD) dated April, 1999 for the operation of a Composting Management Facility (CMF).
2. California Bio-Mass is located on approximately 79 acres on Lot 2, NW 1/4 of Section 1, T7S, R7E, SBB&M, as shown in Attachment A, attached to this Board Order by reference.
3. California Bio-Mass, Inc., composts wastes including chicken and dairy manure, agricultural waste, non-treated wood, paper waste, residential or community garden green waste, food and grocery waste, gypsum, recycled wall board from new construction and liquid waste. These wastes are defined in Finding 4, below:
4. Definition of terms used in this Board Order:
  - a. Green waste – Green waste consists of, or contains, waste from plants, including leaves, clippings, cuttings, grass trimmings, weeds, shrubbery, bushes, or trees, residential or community garden wastes, and untreated wood wastes.
  - b. Compost – A mixture of decaying organic matter used to amend and condition soil.
  - c. Composting Management Facility (CMF) – The entire parcel of property at which composting operations or related activities are conducted.
  - d. Composting Management Unit (CMU) – An area of land, or a portion of a composting management facility, in which compost, additives, or raw material is discharged or stored. The term includes containment and ancillary features including drainage control and monitoring appurtenances.
  - e. Discharger – Discharger means any person who discharges waste that could affect the quality of the waters of the State, and include any person who owns a waste management unit or who is responsible for the operation of a waste management unit (Title 27, California Code of Regulations (27CCR)).
  - f. Food Processing Waste – Food processing waste consisting of or containing only pre-processed and post-processed waste derived from produce or foods from restaurants, hospitals and food distributors.

- g. Agricultural Waste – Agriculture waste consists of plant waste coming directly from an agricultural commodity, and is the product of farms and ranches and by-products processed from these products. Agricultural waste includes agricultural, floricultural, silvicultural, and vermicultural wastes.
- h. Paper Waste – Paper waste consists primarily of paper as an accessory waste to curbside green waste, restaurant, and organic waste from re-sort source separation programs.
- i. Recycled Drywall - This consists of new drywall waste from construction activities. The waste is crushed and added as an amendment.
- j. Liquid Wastes (Percent of Total Liquid Waste Composition):
  - 1. Beer (10%)
  - 2. Milk (10%)
  - 3. Syrups (10%)
  - 4. Orange Juices (10%)
  - 5. Soft drinks (10 %)
  - 6. Miscellaneous (10%), and
  - 7. Grease trap (40 %)

Liquid grease is obtained from grease trap drains or waste pipes designed to stop grease such as animal fat, lard, tallow, bones, and raw animal fat from entering a sewer system.

- k. Additives - These consist of waste or products that include manure, fertilizers, and chemicals that are approved by the Regional Board's Executive Officer for mixing with feedstock to adjust the moisture level, carbon to nitrogen ratio, or porosity in order to create a condition favorable to composting.
  - l. The Grid – The grid is the name given to the elongated feedstock piles formed of the just delivered or received waste material.
5. The finished compost product may include amendments and additives in quantities based on customer specifications or market demand. The amendments and additives may include lime, rock phosphate, gypsum, sulfur, manure or commercial fertilizers. The average production of finished compost will be 550 to 740 tons per day (tpd).
  6. California Bio-Mass CMF is not allowed to accept, treat or compost the following wastes:
    - a. Municipal solid waste;
    - b. Sludge (including sewage sludge, water treatment sludge, and industrial sludge); Septage;
    - c. Liquid waste, unless specifically approved by this Board Order or by the Regional Board's Executive Officer;
    - d. Animal waste, other than specified in this Board Order;
    - e. Oil and grease derived from petroleum products;
    - f. Hazardous or, designated waste, ash, and other wastes determined by the Regional Board's Executive Officer to pose a potential; threat to water quality;
    - g. Hot, burning waste materials or ash;
    - h. Treated wood; and
    - i. Paper waste, other than incidental as a feedstock, hazardous and designated waste paper.
  7. California Bio-Mass CMF has estimated a maximum design handling capacity of 350,000 tons per year or a maximum daily load of 1,350 tpd. The estimated composition of the receiving waste is 75% municipal green waste, 21% food and vegetable waste, and 4% of various other permitted wastes.

The compost processing time ranges from a minimum of two months to a maximum of eight months. The composting method may be either a Grid/Windrow Process (G/WP) and/or an Aerated Static Piles Method (ASPM).

8. California Bio-Mass is in transition from the ongoing G/WP to an ASPM. This transition will be completed by July 15, 2000.
9. The feedstock for the G/WP is held in grid piles for approximately 120 to 150 days with a moisture level of 50 to 60%. Each grid pile is approximately 250x150x12 feet. The grids are approximately 40 feet apart, and have a density of approximately of 666 pounds per cubic yard.
10. After the waste material is moved from the grid in the G/WP, it is placed into windrows for pathogen reduction process. The windrows are 20 feet wide, 12 feet high at initial placement, and with a maximum length of approximately 300 feet. An average separation of 10 feet is maintained between the windrows. During the G/WP composting process, moisture content of 40-60%, aerobic conditions, and temperature at approximately 55 degree Celsius (131 degree Fahrenheit) are maintained for a period of 15 days or longer for windrows. During this period, the windrows are turned a minimum of five times.
11. Finished material is processed through a screw to sort finish product from oversized material. Non compostibles are removed via hand picking. Oversized material is then ground to a reduced size and placed in windrows for further decomposition.
12. Feedstock in the new ASPM is processed for pathogen reduction and decomposition. Under the ASPM, the waste material is aerated through piping installed at 10-foot intervals at the bottom of the pile attached to a force air blower. During the ASPM composting process, moisture content of 40-60%, aerobic conditions and temperature at approximately 55 degrees Celsius (131 degrees Fahrenheit) are maintained for a period of three days. After this period of time, the material remains in static piles to further decompose for 20 to 35 weeks. The composting process is considered complete when the compost temperature, following aeration, does not exceed 120 degrees Fahrenheit.
13. The compost curing area holds the compost removed from the windrows and/or static piles after the active composting period is completed, during the final stages of the screening process. Curing compost is held in this area for approximately three to six weeks.
14. California Bio-Mass has stated that the maximum quantities onsite at any one time will be the following: 90,000 tons of curbside green waste, 500 tons of steer manure, 500 tons of chicken manure, 11,000 tons of food waste, 4,500 tons of grease trap waste, 100,000 cubic yards in windrows, for an aggregate total of 14,000 to 28,000 tons per month, and 25,000 cubic yards of finished materials. The quantity of amendments and additives on-site will depend on market demand.
15. California Bio-Mass submitted to the Regional Board the chemical analysis of the average grease trap liquid that shows an average of 41 mg/L oil and grease. The discharger intends to apply directly to the windrow and/or static piles at a total maximum of 1.22 gallons of liquid waste per cubic feet of green waste.

16. A domestic well within the facility boundary has a depth of 574 feet and the following water quality: Nitrate (NO<sub>3</sub>) 6 mg/L, Fluoride (F) 0.2 mg/L, and Total Dissolved Solid (TDS) 1000 mg/L. The well is located at the northwest corner adjacent to the pond (reservoir) as shown on Attachment A. The depth of the shallow aquifer is approximately 13 feet.
17. The discharger installed four ground water monitoring wells into perched aquifers (MW-1, MW-2, MW-3, and MW-4) on October 29, 1999. Analyses of ground water samples from these wells on November 15, 1999 indicate the presence of some volatile organic compounds (VOCs), total coliform and fecal coliform/E. Coli. Further samples will be collected for confirmation and determination of a potential source.
18. The composting facility operational areas are designed to enhance the lateral drainage of free liquids, including compost leachate, wastewater from cleaning operations, and precipitation. According to the ROWD the facility has a minimum grade of 1%. The runoff water will be conveyed to a detention basin on site.
19. At a maximum operational capacity of 1,350 tpd and a maximum of 250 gallons per ton of feedstock, the water demand will be between 250,000 to 400,000 gallons per day. The water demand depends on ambient conditions and the moisture content of the incoming feedstock. The processed water is provided by an on-site water supply well and a 900,000-gallon holding reservoir serviced by the Coachella Valley Water District.
20. The facility is on clayey silt soil (classified as Indio very fine sand loamy) with an average falling head permeability of  $3.38 \times 10^{-7}$  cm/sec.
21. Agriculture commodities may contain agronomic levels of pesticides, herbicides, and fungicides.
22. The Water Quality Control Plan for the Colorado River Basin Region of California (Basin Plan) was adopted on November 17, 1993, and designates the beneficial uses of ground and surface waters in this Region.
23. The beneficial uses of ground water in the Whitewater Hydrologic Unit, are:
  - a. Municipal Supply (MUN)
  - b. Industrial Supply (IND)
  - c. Agriculture Supply (AGR)
24. Federal regulations for storm water discharges were promulgated by the U. S. Environmental Protection Agency on November 16, 1990 (40 CFR Parts 122, 123, and 124). The regulations require that specific categories of facilities which discharge storm water associated with industrial activity to obtain NPDES permits and to implement Best Conventional Pollutant Technology (BCPT) to reduce or eliminate industrial storm water pollution.
25. The State Water Resources Control Board adopted Order No. 97-03-DWQ (General Permit No. CAS000001), specifying waste discharge requirements for discharges of storm water associated with industrial activities, excluding construction activities, and requiring submittal of a Notice of Intent by industries to be covered under the Permit.
26. The CMF is within a large agriculture zone in a desert environment in southeastern Riverside County. Normal annual precipitation in this area is 2 to 2.6 inches, and normal annual surface evaporation is 88 inches.
27. The Board has notified the discharger and all known interested agencies and persons of its intent to issue waste discharge requirements for said discharge and have provided them with an opportunity for a public meeting and an opportunity to submit comments.

28. The Board in a public meeting heard and considered all comments pertaining to this discharge.
29. On June 15, 1999, Riverside County, as lead agency, certified the CEQA document registered under the State Clearinghouse with Number 98101106 and the Environmental Assessment document registered under the number 37416 for the subject facility.
30. The jurisdiction of the Regional Board is limited to regulating the impact on water quality and the beneficial uses of water by the discharge of wastes. These Waste Discharge Requirements, Order No. 00-004, are limited to matters within the Regional Boards' jurisdiction.
31. The composting activities at the facility have been regulated since July 9, 1996 under the General Conditional Waiver of Waste Discharge Requirements for Green Composting operations, Board Order No. 96-019 adopted on May 22, 1996. A Notice of Applicability was issued by the Regional Board's Executive Officer on July 9, 1996. After adoption of this Board Order, this Notice of Applicability is rescinded.

IT IS HEREBY ORDERED, that in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, the discharger shall comply with the following:

A. Specifications

1. The treatment or disposal of wastes at this facility shall not cause pollution as defined in Sections 13050 of Division 7 of the California Water Code.
2. Compost waste material shall be confined to the composting management facility as defined in Findings No. 1, 2, and 4, and shown on Attachment A.
3. Composting and storage of waste shall be limited to the areas designated for such activities. Any revision or modification of the designated area, or any proposed change in operation at the facility, must be submitted in writing to the Regional Board's Executive Officer for review and approval before the proposed change in operations or modification of the designated area is implemented.
4. Any increase or change in the annual average volume of material to be composted at the site must be submitted in writing to the Regional Board's Executive Officer for review and approval.
5. On-site storage of chicken, steer or dairy manure, and new drywall waste shall not exceed a maximum of 90 days.
6. If any portion of the facility is to be closed, the discharger shall notify the Regional Board's Executive Officer at least 180 days prior to beginning any partial or final closure activities.
7. Ninety days prior to the cessation of composting operations at the facility, the discharger shall submit a workplan, subject to approval of the Regional Board's Executive Officer, for assessing the extent, if any, of contamination of natural geological materials and waters of the Whitewater Hydrological Unit by the waste. 120 days following workplan approval, the discharger shall submit a technical report presenting results of the contamination assessment. A California registered civil engineer or certified engineering geologist must prepare the workplan, contamination assessment, and engineering report.
8. Upon ceasing composting operations at the facility, all waste, all natural geologic material contaminated by waste, and all surplus or unprocessed composting material shall be removed from the site and disposed of in a manner approved by the Regional Board's Executive Officer.
9. The discharger shall establish a financial instrument for closure in an amount acceptable to the Regional Board's Executive Officer. The closure fund shall be established (or evidence of an existing closure fund shall be provided) within six months of the adoption of this Board Order.

10. Surface drainage from tributary areas, and internal site drainage from surface or subsurface sources, shall not contact or percolate through composting material or amendment additives discharged at this site.
11. The interior surfaces of the CMF shall be graded and maintained to promote conveyance to the detention basin of the lateral runoff, precipitation, and leachate.
12. If any liquid is collected in the basin, this may be reapplied to the windrows if the chemical analysis of the liquid indicates that the liquid does not exceed designated or hazardous level criteria.
13. The discharger shall use the constituents listed in Monitoring and Reporting Program No. 00 -004 and revisions thereto, as "Monitoring Parameters".
14. The discharger shall implement the attached Monitoring and Reporting Program No. 00-004 and revisions thereto, in order to detect, at the earliest opportunity, any unauthorized discharge of waste constituents from the CMF, or any impairment of beneficial uses associated with (caused by) discharges of waste to the CMF.
15. The discharger shall follow the Water Quality Protection Standard (WQPS) for detection monitoring established by the Regional Board pursuant to Title 27. The following are four parts of WQPS as established by the Regional Board.
  - a. The discharger shall test for the monitoring parameters and the Constituents of Concern (COC) listed below and in the Monitoring and Reporting Program No. 00-004 and revisions thereto for:

Constituents

1. Total dissolved solids
  2. Temperature
  3. Volatile Organic Compounds (VOCs)
  4. Specific conductance
  5. pH
  6. Sulfate
  7. Nitrate
  8. Arsenic
  9. Antimony
  10. Lead
  11. Copper
  12. Total Chromium
  13. Phosphate
  14. Mercury
  15. Selenium
  16. Nickel
  17. Carbonate
  18. Fecal Coliform
  19. E Coli
  20. Total Petroleum Hydrocarbons
- b. Concentration Limits - The concentration limit for each monitoring parameter and constituents of concern for each monitoring point (as stated in the Detection Monitoring Program), shall be its background value as obtained during that reporting period.
  - c. Monitoring points of compliance are the monitoring wells MW-1, MW-2, MW-3, and MW-4 shown on Attachment A, and any revised Monitoring and Reporting Program approved by the Regional Board's Executive Officer.

d. Compliance period - The duration of the compliance period for this CMF is 5 years. Each time the Standard is not met (i.e. releases discovered), the CMF begins a compliance period on the date the Regional Board directs the discharger to begin an Evaluation Monitoring Program. If the discharger's Corrective Action Program (CAP) has not achieved compliance with the standard by the scheduled end of the Compliance Period, the Compliance Period is automatically extended until the CMF has been in continuous compliance for at least three consecutive years.

16. The discharger shall remove and relocate to a disposal area approved by the Regional Board's Executive Officer any unacceptable wastes that were brought or discharged at this site in violation of these requirements.
17. Water used for the process and site maintenance shall be limited to the amount necessary in the process and for dust control.
18. The CMF shall be protected from any washout or erosion, and from any inundation, which could occur as a result of floods having a predicted frequency of once in 100 years.
19. The discharger shall not cause the release of pollutants, or waste constituents in a manner, which could cause a condition of contamination, or pollution to occur.

#### B. Prohibitions

1. The discharge or deposit of liquid and solid waste other than the green waste, chicken and dairy manure, agricultural waste, non treated wood, paper waste, residential or community garden green waste, food and grocery waste, gypsum, recycled wall board from new construction, lime, rock phosphate, gypsum, sulfur, manure or other commercial fertilizers, and liquid waste as defined in Finding 4 at this site is prohibited.
2. The California Bio-Mass site is prohibited from accepting, treating or composting the following wastes:
  - a. Municipal solid waste;
  - b. Sludge (including sewage sludge, water treatment sludge, and industrial sludge);  
Septage;
  - c. Liquid waste, unless specifically approved by this Order or by the CRWQCB;
  - d. Animal waste, other than specified in this Order;
  - e. Oil and grease derived from petroleum product; and
  - f. Hazardous, designated, and other wastes determined by the CRWQCB to pose a potential threat to water quality;
  - g. Hot, burning waste materials or ash;
  - h. Treated wood; and
  - i. Paper waste, other than incidental as a feed stock, hazardous and designated waste paper.
3. The discharge or deposit of hazardous, designated waste (as defined in Title 27), and other wastes determined by the Regional Board to pose a potential treat to water quality at this site is prohibited.
4. The discharge of wastes in a manner or at a location different than that described in the Findings of this Board Order is prohibited.
5. The discharger shall neither cause nor contribute to the contamination or pollution of ground water via the release of waste constituents in either liquid or gaseous phase.
6. Direct discharge of any waste to any surface water or surface drainage courses is prohibited.
7. The discharger shall not accept feedstock deliveries made to the composting site that contain the following materials:

- a. Hazardous material such as poisons, toxins, pesticides or pesticide containers, as defined in Title 22 of State of California Code of Regulations (CCR);
  - b. Material containing PCB's creosote, arsenic, pentochlorophenolds, petroleum hydrocarbons, and diesel or gasoline residues;
  - c. Group I wastes as defined in Title 27 CCR;
  - d. Dead animals;
  - e. Hot, burning waste materials, or ash;
  - f. Explosives or combinations of waste/material that could spontaneously burn or explode;
  - g. Painted wood; and
  - h. Wastewater treatment sludge.
8. The discharger shall not cause the concentration of any Constituent of Concern or Monitoring Parameter to exceed its respective background value in any monitored medium at any Monitoring Point assigned for Detection Monitoring pursuant to Monitoring and Reporting Program No. 00-004 and revisions thereto.
  9. No pesticides, herbicides, and fungicides should be applied to the feedstock or produce unless the pesticides, herbicide, and fungicides are for pest or weed control and the Regional Board's Executive Officer has been notified at least one week before it is applied.

#### C. Provisions

1. The discharger shall comply with "Monitoring and Reporting Program No. 00-004" and future revisions thereto, as specified by the Regional Board's Executive Officer.
2. The size, operation condition, and locations of the grids, windrows, and static piles shall be managed according to the Riverside County Fire Department approval or specified conditions.
3. If there is any fire at the CMF, the discharger shall report by telephone within 48 hours to the RWQCB after the incident. Also, a written report shall be filled with the Regional Board within seven (7) days, containing at least the following information:

- a. A map showing the location(s) of the fire
  - b. A description of the nature of the fire
  - c. Firewater runoff or leachate handling procedures
  - d. Description of future fire prevention measures
4. Prior to any change in ownership or management of this operation, the discharger shall transmit a copy of this Board Order to the succeeding owner/operator, and forward a copy of the transmittal letter to the Regional Board.
  5. Prior to any modifications in this facility, which would result in material change in the quality or quantity of discharged, or any material change in the location of discharge, the discharger shall report all pertinent information in writing to the Regional Board and obtain revised requirements before any modifications are implemented.
  6. If vegetation is used for erosion control purposes at the containment features, it shall not impair the integrity of containment features. If irrigation of vegetation is used at the CMF, it shall be managed to minimize runoff.
  7. All containment structures and erosion and drainage control systems shall be designed and constructed under direct supervision of a California Registered Civil Engineer, and shall be certified by the individual as meeting the prescriptive standards and performance goals.
  8. The discharger shall ensure that all site-operating personnel are familiar with the content of this Board Order, and shall maintain a copy of this Board Order at the site.
  9. This Board Order does not authorize violation of any federal, state, or local laws or regulations.
  10. The discharger shall allow the Regional Board, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:
    - a. Enter upon the premises regulated by this Board Order, or the place where records must be kept under the conditions of this Board Order;
    - b. Have access to and copy, at reasonable times, any records that shall be kept under the conditions of this Board Order;
    - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Board Order; and
    - d. Sample or monitor at reasonable times, for the purpose of assuring compliance with this Board Order or as otherwise authorized by the California Water Code, any substances or parameters at this location.
  11. The discharger shall comply with all of the conditions of this Board Order. Any noncompliance with this Board Order constitutes a violation of the Porter-Cologne Water Quality Control Act and is grounds for enforcement action.
  12. The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the discharger to achieve compliance with this Board Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures.
  13. This Board Order does not convey any property rights of any sort or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.

14. The discharger shall comply with the following:
  - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
  - b. The discharger shall retain records of all monitoring information, including all calibration and maintenance records and any all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Board Order, and records of all data used to complete the application for this Board Order, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Regional Board's Executive Officer at any time.
  - c. Records of monitoring information shall include:
    1. The date, exact place, and time of sampling or measurements.
    2. The individual(s) who performed the sampling or measurements.
    3. The date(s) analyses were performed.
    4. The individual(s) who performed the analyses.
    5. The results of such analyses.
  - d. Monitoring must be conducted according to test procedures described in the Monitoring and Reporting, unless other test procedures have been specified in this Board Order.
15. All monitoring systems shall be readily accessible for sampling and inspection.
16. The discharger is the responsible party for the waste discharge requirements, and the monitoring and reporting program for the facility. The discharger shall comply with all conditions of these waste discharge requirements. Violations may result in enforcement actions, including Regional Board Orders or court orders, requiring corrective action or imposing civil monetary liability or in modification or revocation of these waste discharge requirements by the Regional Board.
17. The discharger shall furnish, under penalty of perjury, technical monitoring program reports, and such reports shall be submitted in accordance with the specifications prepared by the Regional Board's Executive Officer. Such specifications are subject to periodic revisions as may be warranted.
18. The discharger may be required to submit technical reports as directed by the Regional Board's Executive Officer.
19. The discharger shall neither cause nor contribute to the contamination or pollution of ground water via the release of waste constituent in either liquid or gaseous phase.
20. The discharger shall not cause any increase in the concentration of waste constituents in soil pore gas, soil-pore liquid, soil or other geological material outside the CMF if such waste constituents could migrate to waters of the State in either the liquid or the gaseous phase, and cause conditions of contamination or pollution.

21. The procedure for preparing samples for the analyses shall be consistent with the Monitoring and Reporting Program No. 00-004 and any revisions thereto. The Monitoring Reports shall be certified to be true and correct, and signed, under penalty of perjury, by an authorized official of the Company.
22. The discharger shall comply with the State Water Resources Control Board's Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities.
23. All monitoring shall be performed as described in Title 27 of the California Code of Regulations.

I, Philip A. Gruenberg, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on April 12, 2000.

original signed by/  
Executive Officer